

meristic and ordered multistate characters as well as several standard myrmecological indices. *Dorylus* queens are dichthadiigynes, i.e. they possess a greatly enlarged petiole and gaster, are blind or nearly so, and are permanently apterous (Fig. 1). Although certain morphological features, e.g. the shape of the mandible, are rather homogeneous in appearance throughout the genus, other characters are of considerable taxonomic importance. Among these are the relative widths of the pronotum and propodeum, shape of the petiole, condition of the posterior margin of the pygidium (notched v. concave or straight), shape of the hypopygium, and position of the hypopygium relative to the pygidium (Figs. 1–3).

Army ant queens are relatively rare in collections, and so in addition to our previous reasons for using the exemplar method of characterizing species (Barr & Gotwald, 1982),

we add the constraint of necessity. Fortunately, adherence to the exemplar technique throughout has made it possible to treat the queens of *Dorylus* spp. in a manner comparable to that used for males and major workers.

One complete analysis was carried out on the full set of raw data. Then, all metric characters in the data set were transformed to ratios of a standard size measure to reduce the influence of overall size in the resulting phenograms and ordinations. In previous studies on major workers and males, profemur length was chosen as the standard indicator of overall size. Unfortunately, the queen specimen representing species 2 in the present study was damaged and lacked both profemurs. Two variations in the analysis were attempted in order to compensate for the inadequate data. One set of computations was completed using data with metric characters transformed to ratios of mesofemur

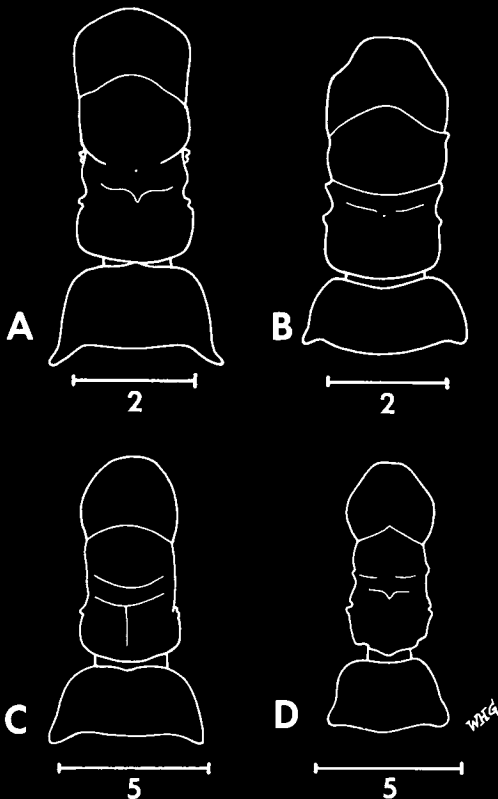


FIG. 2. Alitrunk and petiole of queens of the genus *Dorylus*, dorsal view. (A) *Alaopone*. (B) *Dorylus* (s.s.). (C) *Rhogmus*. (D) *Typhlopone*. Scales in mm.

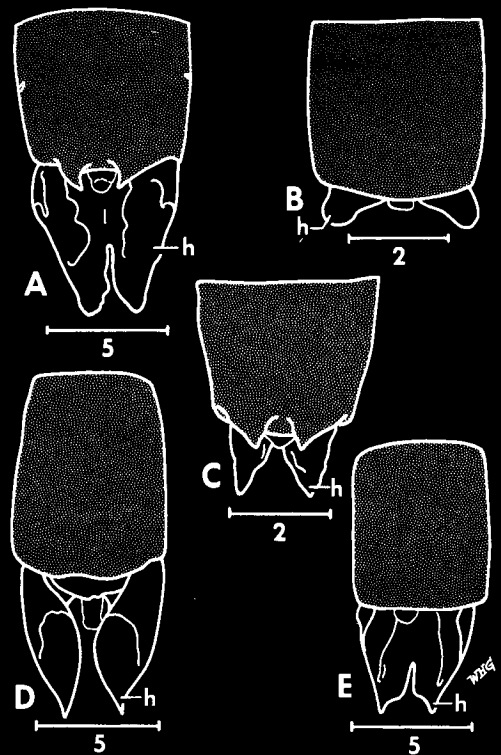


FIG. 3. Terminal abdominal segment of queens of the genus *Dorylus*, dorsal view. The pygidium is stippled, h = hypopygium. (A) *Anomma*. (B) *Alaopone*. (C) *Dorylus* (s.s.). (D) *Rhogmus*. (E) *Typhlopone*. Scales in mm.